

[CLAIMS]

[Claim 1]

An antistatic adhesive tape comprising a base film and, on one surface of the base film, either a conductive polymer-based conductive layer and an adhesive layer formed on the conductive layer, or a layer formed of a mixture of a conductive polymer and an adhesive layer.

[Claim 2]

An antistatic adhesive tape with antistatic and hard coating properties, which comprises a base film and, on one surface of the base film, either a layer formed by hard-coating a mixture of a conductive polymer and a UV curing agent, or a conductive polymer-based conductive layer and a UV curing layer on the conductive layer as a protective layer.

[Claim 3]

The antistatic adhesive tape of Claim 1, which further comprises a conductive polymer-based antistatic layer on the opposite surface of the base film.

20 [Claim 4]

The antistatic adhesive tape of Claim 3, wherein in order to impart a hard coating property to the antistatic layer on the opposite surface, a UV curing agent is coated

on the antistatic layer to form a protective layer, or the antistatic layer is formed by hard-coating a mixture of a conductive polymer and a UV curing agent.

【Claim 5】

5 A method for producing an adhesive tape, which comprises, on one surface of a base film, either forming a conductive polymer-based antistatic layer and then applying an adhesive agent on the formed antistatic layer, or applying a mixture of a conductive polymer and an adhesive agent.

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【Claim 6】

15 A method for producing an antistatic adhesive tape, which comprises, on one surface of a base film, either forming a conductive polymer-based antistatic layer and then forming a protective layer formed of a curing agent containing a UV-curable binder, or hard-coating a mixture of a conductive polymer and a UV-curable binder, so as to impart antistatic and hard coating properties to the tape.

【Claim 7】

20 The method of Claim 5, which additionally comprises forming a conductive polymer-based antistatic layer on the opposite surface of the base film.

【Claim 8】

The method of Claim 7, which comprises, on the antistatic layer formed on the opposite surface, either forming a protective layer formed of a UV-curing agent 5 containing a UV-curable binder, or hard-coating a mixture of a curing agent, a conductive polymer and a UV-curable binder, so as to impart a hard coating property to the antistatic layer.

【Claim 9】

10 The method of Claim 7, wherein in order to form the protective layer on the antistatic layer on the opposite surface, a heat-curable binder and a curing agent are added to the conductive polymer, or the conductive polymer is applied on the antistatic layer and then a heat-curable 15 coating agent containing a heat-curable binder is applied.

【Claim 10】

The method of Claim 8 or 9, wherein the heat-curable binder or the UV-curable binder contains a component with a release property.

20 **【Claim 11】**

The method of any one of Claims 7 to 9, wherein a surfactant with a release property is used in the antistatic layer on the opposite surface so that an

adhesive agent does not adhere to the antistatic layer.

【Claim 12】

The method of any one of Claims 5 to 8, wherein the conductive polymer is selected from the group consisting of 5 polythiophene, polyaniline, polypyrrole, and 3,4-polyethylenedioxythiophene, and derivatives thereof.

【Claim 13】

The method of any one of Claims 5 to 8, wherein the antistatic layer is formed by coating a composition 10 containing a conductive polymer solution and a binder as main components the one surface of the base film.

【Claim 14】

The method of any one of Claims 5 to 8, wherein the antistatic layer is formed by polymerizing a mixture of 15 monomers, an oxidizing agent and a dopant directly on the base film so as to synthesize a conductive polymer.

【Claim 15】

The method of any one of Claims 5 to 8, wherein the antistatic layer is formed by a vapor phase polymerization 20 method in which an oxidizing agent and a dopant are coated on the base film, and then vapor phase monomers are brought into contact with the coated materials.

[Claim 16]

The method of any one of Claims 5, 7 and 8, wherein the adhesive agent is coated in a thickness of 0.001-30 μm .

[Claim 17]

5 The method of any one of Claims 5 to 8, wherein the base film is made of a polymer selected from polyethylene, polyester, polyimide, polystyrene, polyether, polyethersulfone, polyacryl (methacryl), cellulose polymers, cyclic olefin polymers and copolymers thereof.

10 **[Claim 18]**

An adhesive tape produced by a method set forth in any one of Claims 5 to 8.

[Claim 19]

15 The adhesive tape of Claim 18, which further comprises an antistatic treated release film attached to one surface of the tape.

[Claim 20]

20 A film with a permanent antistatic property for protecting electronic parts, such as LCDs, which is produced using the tape of Claim 18.